

MEMORANDUM DM 97-18

DATE: December 12, 1997

TO: All Underground Coal Mine Operators

FROM: Frank A. Linkous
Chief, Division of Mines

SUBJECT: Advanced First Aid Trainees

Emergency Medical Services Personnel

The Coal Mine Safety Laws of Virginia were amended in 1977 to require certified emergency medical services personnel at all underground operations. This requirement is addressed in Section 45.1-161.199 which establishes qualifications and availability of emergency medical services personnel. This section also provides that, "In the event that at any time there is at any mine an insufficient number of qualified miners volunteering to serve as emergency medical personnel as provided in this section, the operator may elect to utilize the services of first aid trainees, in such numbers as the Chief determines to be appropriate".

In recent years, the lack of Certified Emergency Medical Technicians and EMT-First Responders within the coal industry has become a serious compliance concern for many underground mining operations, and has diminished the intended purpose and effectiveness of this section of law. Several factors have contributed to this problem with perhaps the most significant factor being the three-year re-certification examination which in most cases requires the miner-first responder to undergo extensive retraining. Further, the availability of instructors and regular classes within the Southwest Virginia coal communities has made training and certification difficult.

Advanced First Aid Trainees

On August 20, 1997, the Board of Coal Mining Examiners Certification Requirements became effective. **Sections 4 VAC 25-20-210, Advanced First Aid, and 4 VAC 25-20-220, Advanced First Aid Instructor**, address the standards which are applied when an underground coal mine operator elects to utilize the services of first aid trainees. See Attachment 1 for BCME requirements.

Instructional Program

DMME has developed Advanced First Aid instructional standards and training materials which are currently available. In addition, DMME certified

instructors have completed 18 classes with 200 Virginia coal miners receiving certification. By the end of this year, 23 advanced first aid instructors will become certified to provide initial and annual advanced first aid retraining. Attachments 2 and 3 summarize the advanced first aid certification requirements and requirements for becoming an advanced first aid instructor. Attachment 4 is a list of certified instructors in advanced first aid.

Required Number of Trainees

As provided in Section 45.1-161.199 of the Code of Virginia, the minimum number of advanced first aid trainees is two trainees on any shift where five or more miners are employed underground. In those situations where less than five miners are working underground, one advanced first aid trainee must be located so as to be available for duty. These minimum numbers are considered appropriate for single unit operations or other similar activities and ensures that workers in any area of the mine can be reached within a reasonable time which has been established as fifteen minutes. It is important to emphasize that at multiple shift operations or other complex situations, more than two advanced first aid trainees may be needed on each shift to be able to respond and reach miners in any location within fifteen minutes. Therefore, mine operators electing to utilize advanced first aid trainees are encouraged to train additional personnel sufficient for the most significant current or future need.

Adequate Supply of First Aid Equipment

Section 45.1-161.197 of the Coal Mine Safety Laws of Virginia establishes the required locations for first aid equipment. An adequate supply of equipment for advanced first aid trainees has been determined based on the level of training and mine related emphasis of training provided. Attachment 5 includes a complete list of the equipment required where advanced first aid trainees are utilized by the mine operator.

A great deal of effort and resource has been committed to provide a program for advanced first aid that develops and certifies trainees the mine operator may use when certified emergency medical services personnel are not available. The training and certification program is designed to be coal mine specific in emphasis, and to promote and deliver high quality training and emergency response skills development. All coal mine operators are encouraged to review and evaluate the advanced first aid program and its potential application to meet operational requirements for trained emergency services personnel. Should you have any questions or comments concerning this program, contact me at (540)523-8226.

pm

Attachments

4 VAC 25-20-210. Advanced first aid.

A. Applicants shall complete a 24-hour advanced first aid class, at minimum, taught by a certified advanced first aid instructor or possess appropriately related work experience approved by the chief and pass the advanced first aid examination.

B. Approved Advanced first aid classes shall cover the following subjects:

1. Introduction to first aid;
2. Respiratory emergencies and cardiopulmonary resuscitation; i.e., heart saver or other four-hour equivalent;
3. Removal of foreign bodies from the throat (the Heimlich Maneuver);
4. Wounds;
5. Shock;
6. Specific injuries including head and chest;
7. Contamination, infection, and prevention;
8. Burns;
9. Cold exposure and frost bite;
10. Bone and joint injuries;
11. Dressings and bandages;
12. Sudden illness;
13. Emergency underground rescue and transfer;
14. Unusual rescue situations related to mining;
15. Poisoning, toxic and hazardous materials;
16. Transportation of victims; and
17. Heat exposure.

C. Certified persons shall complete four hours continuing education annually, which is taught by a certified advanced first aid instructor, to maintain their advanced first aid card. This continuing education requirement shall include recertification in CPR.

D. The holder of the certificate shall submit documentation to the division indicating the required continuing education has been completed

E. Applicants holding a valid EMT card or EMT first responder card, shall be deemed eligible to receive advanced first aid certification without having to complete the initial advanced first aid class or without passing the advanced first aid examination. All applicants shall complete eight hours of continuing education. The advanced first aid certification shall start on the day the applicant's EMT certification or EMT first responder certification expires.

F. Failure to complete required continuing education shall result in suspension of the certification pending completion of the continuing education. Applicants may meet the teaching requirement by teaching under the supervision of an advanced first aid instructor. If the continuing education requirement is not met within one year from the suspension date, then the certification shall be revoked by the BCME.

G. The division shall send notice of any suspension to the last known address of the certified person reported to the division in accordance with 4 VAC 25-20-20 I and the last known employer address.

4 VAC 25-25-220. Advanced first aid instructor.

A. Applicants shall be certified as an advanced first aid instructor by the American Red Cross, National Safety Council, Virginia Emergency Medical Services, or as otherwise approved by the chief. Applicants shall also be certified in cardiopulmonary resuscitation by the American Heart Association or the American Red Cross.

B. The holder of the certificate shall submit documentation to the division indicating that they have continued their certification as required by subsection A of this section or by teaching one initial or refresher first aid training course for DMME within a two-year period.

C. Failure to maintain a certified advanced first aid instructor's certification will result in suspension of the applicant's BCME certification. Applicants may meet the teaching requirement by teaching under the supervision of an advanced first aid instructor. If the certification is not renewed within one year from the suspension date, then the certification shall be revoked by the BCME.

D. The division shall send notice of any suspension to the last known address of the certified person reported to the division in accordance with 4 VAC 25-20-20 I and the last known address of the employer.

NOTE: See BCME Requirements for ADFA, Attachment 2; and ADFAI, Attachment 3

Advanced First Aid Instructors

Attachment 4

NAME	ADDRESS	TELEPHONE NO.
Belcher, George	Rt. 1, Box 315 Dryden, VA 24243	(540)546-3257 (H) (540)523-8280 (W)
Bolling, Paul E.	P. O. Box 1201 Wise, VA 24293	(540)679-5747 (H) (540)679-4937 (W)
Breeding, Curtis W.	Box 494 Richlands, VA 24641	(540)964-4537 (H) (540)964-2555 (W)
Colley, Sandy	P. O. Box 243 Cedar Bluff, VA 24609	(540)964-4821 (H) (540)498-7411 (W)
Crabtree, Keith	P. O. Box 1111 Pound, VA 24279	(540)796-9220 (H) (540)926-8890 (W)
Davenport, Dennis N.	308 Cardinal Lane Bristol, TN 37620	(540)889-6261 (W)
Dickey, Larry E.	Rt. 3, Box 275 Grundy, VA 24614	(540)935-5878 (H) (540)531-8411 (W)
Farmer, Clark B.	Rt. 1, Box 237A Raven, VA 24639	(540)963-0528 (H) (540)935-8810 (W)
Humphrey, Jr., James	Rt. 2, Box 425 Pounding Mill, VA 24637	(540)964-5583 (H) (540)964-2555 (W)
Keene, Deborah A.	Rt. 3, Box 1050 Cedar Bluff, VA 24609	(540)963-0013 (H) (540)963-0841 (W)
King, Jr., James E.	P. O. Box 347 N. Tazewell, VA 24650	(540)988-4597 (H) (540)964-2555 (W)
Mullins, Leroy	904 1 st Avenue East Big Stone Gap, VA 24219	(540)523-3134 (H) (540)679-4776 (W)
Salyer, William A.	HC 67 Box 85 Oakwood, VA 24631	(540)259-7304 (H) (540) 935-8810 (W)
Smith, Paul W.	P. O. Box 321 Vansant, VA 24656	(540)597-7953 (H) (540)498-7461 (W)
Snodgrass, Jimmy	Rt. 4, Box 470 Jonesville, VA 24263	(540)546-3403 (H) (540)546-4773 (W)
Vanhoozer, Virginia	Rt. 1, Box 600 Tazewell, VA 24651	(540)988-4102 (H)

ADVANCED FIRST AID EQUIPMENT

- A- One stretcher
- B- One broken-backboard (if a splint-stretcher combination is used, it will satisfy the requirements of both A and B)
- C- 36 Triangular bandages
- D- 8 Four inch bandage compresses
- E- 24- 4" x 4" gauze pads
- F- 8 Two inch bandage compresses
- G- 12 One inch adhesive compresses (band-aids)
- H- One foille
- I- Two full size wool blankets (at least 6' x 6')
- J- One rubber blanket or equivalent substitute (DM would accept another wool blanket as described in "I")
- K- Two tourniquets
- L- One one-ounce bottle of spirits of ammonia or one dozen ammonia ampules
- M- Two inflatable plastic arm splints – Two inflatable plastic leg splints
Two rigid wood splints 24" x 3.5" x 1/8", or wire ladder splints
Two rigid wood splints, 32" x 4' x 1/8"
Two rigid wood splits, 40" x 4" x 1/8'
- N- Two rigid cervical collars (one medium; one large)
(Stifnek, Philadelphia or Vertebrace type)
- O- One dozen pair latex examination gloves
- P- Two Resuscitation masks equipped with a one-way valve
- Q- Three adult oropharyngeal airways (different sizes)
- R- Four rolls adhesive tape (at least 1 inch wide)
- S- One pair medical-type scissors or medical-type shears
- T- Two sterile burn sheets

U- One dozen paper or styrofoam cups (nonfolding type)

V- Dressings

1. Four trauma dressings, at least 8" x 10", sterile and individually wrapped
2. Occlusive dressings- Six petroleum gauze or one roll aluminum foil(18" x 25")or one roll plastic wrap (18" x 25")
3. Three rolls Kling gauze (2 inch, 3 inch, or 4 inch wide) or other self-adhering gauze

W- Eye wash – irrigating solution (2 four ounce bottles or equivalent)

X- Four cold packs



**DIVISION OF MINES
BOARD OF COAL MINING
EXAMINERS
CERTIFICATION
REQUIREMENTS**

ADVANCED FIRST AID INSTRUCTOR

Article 3 of the **Coal Mine Safety Laws of Virginia** establishes requirements for certification of coal mine workers. The certification requirements are included in §45.1-161.24 through §45.1-161.41 in which the Board of Coal Mining Examiners is established for the purpose of administering the certification program. The Board has promulgated certification regulations 4 VAC 25-20 (VR 480-04-2), which set the minimum standards and procedures required for Virginia coal miner examinations and certifications.

CERTIFICATION CLASSIFICATION: *Advanced First Aid Instructor*

This certification authorizes the holder to conduct required advanced first aid classes to meet the Requirement of §45.1-161.199.

APPLICATION/EXPERIENCE REQUIREMENTS:

- ☞ Application (BCME-1) and \$10.00 fee 5 working days prior to examination if examination is required
- ☞ Hold a valid First Aid certification from the American Red Cross, National Safety Council, Virginia Emergency Medical Services
- ☞ Possess CPR Instructor Certification (American Heart Association or American Red Cross) or schedule training by a certified CPR instructor
- ☞ Attend 8 hour Instructor Equivalency Training Course conducted by a DM certified Advanced First Aid Instructor

EXAMINATION REQUIREMENTS: Applicants who have adequate first aid training and instructor experience will not be required to take an examination. Individuals wishing to become certified to teach Advanced First Aid but have no valid card must complete requirements as determined by the Chief. **All instructors will be monitored by a DM Representative prior to issuance of Advanced First Aid Instructor certification and those may be asked to co-teach a class with a DM instructor.**

PRIOR TO CONDUCTING A CLASS:

- ☞ Instructors must have completed all Board of Coal Mining Examiners requirements for Advanced First Aid Instructor certification except "Monitoring."
- ☞ **Notify the Regulatory Boards Administrator in writing, at least 10 working days prior to class:**
 - ◆ Instructor's name
 - ◆ Social Security No.
 - ◆ Projected number of students (if possible)
 - ◆ Location, date, time of scheduled class

PRIOR TO COMPLETING CLASS:

- Provide Regulatory Boards Administrator with class roster and schedule a tentative

examination date

- Have students complete application DM-BDME-1 and submit \$10.00 fee (checks made payable to Treasurer of Virginia)
- Submit DM-BDME-5 Advanced First Aid Practical Stations and CPR (written and practical) to DM at end of class or on exam date
- Student attendance sheet must be submitted by instructor at the end of class or on exam date. This must contain student's name, address and each date attended.

RECOMMENDED REFERENCE/STUDY MATERIALS:

- American Red Cross - Emergency Response Manual
- 👉 Advanced First Aid Instructor's Guide
- 👉 BCME Requirements

The above mentioned study materials are available at the Department of Mines, Minerals and Energy's Big Stone Gap Office, Customer Assistance Center (276) 523-8233 and Keen Mountain Field Office (276) 498-4533.



**DIVISION OF MINES
BOARD OF COAL MINING EXAMINERS
CERTIFICATION REQUIREMENTS**

Article 3 of the **Coal Mine Safety Laws of Virginia** establishes requirements for certification of coal mine workers. The certification requirements are included in §45.1-161.24 through §45.1-161.41 in which the Board of Coal Mining Examiners is established for the purpose of administering the certification program. The Board has promulgated certification regulations 4 VAC 25-20 (VR 480-04-2), which set the minimum standards and procedures required for Virginia coal miner examinations and certifications.

CERTIFICATION CLASSIFICATION: *Advanced First Aid*

This certification authorizes the holder to meet standards for emergency care in the coal mining industry required by §45.1-161.199.

APPLICATION/EXPERIENCE REQUIREMENTS:

- Application (BCME-1) and \$10.00 fee 5 working days prior to examination
- 24 hour Advanced First Aid course taught by an Advanced First Aid Instructor

NOTE: TRANSFER OF EMT/FIRST RESPONDER CERTIFICATION TO ADVANCED FIRST AID MAY BE ACCOMPLISHED BY:

- Application (BCME-1) and \$10.00 fee
- Provide verification of valid EMT/First Aid certification issued by EMS-VA
- Attend 8 hours Advanced First Aid Reciprocity Training Course conducted by a DM certified Advanced First Aid Instructor
- No examination required

EXAMINATION REQUIREMENTS: The examination for certification in Advanced First Aid requires a passing score of 80% on the written sections of the examination.

ELEMENTS OF EXAM		NUMBER OF QUESTIONS
<u>Section 1</u> (F1)		20
- Respiratory Emergencies, Respiratory System		
- Introduction to First Aid		
- Wounds		
<u>Section 2</u> (F2)		20
Circulatory System		
- Control of Bleeding		
- Shock		
<u>Section 3</u>		20
Musculoskeletal System		
- Abdominal Injuries	- Lower & Upper Extremities Injuries	
- Chest Injuries	- Pelvic Injuries	
- Dislocations	- Spinal Injuries	
- Face & Throat Injuries	- Sprains	
- Fractures	- Transporting Victims	
- Head Injuries		
<u>Section 4</u>		20
Accidental Poisonings		
Environmental Emergencies		
- Burns		
- Cold Exposure		
- Stings & Bites		
Emergency Rescue		

- Electrical Circuits
- Hazardous Materials
- Irrespirable Atmosphere
- Machinery Entrapment
- Roof & Rib Entrapment

Sudden Illness

- Diabetes
- Epilepsy
- Heart Attack
- Stroke

NOTE: Each student must successfully complete:

- Course in Cardiopulmonary Resuscitation (CPR) i.e., heart saver or other four-hour equivalent
- Practical examination which includes forearm, lower leg, spine board

RECOMMENDED REFERENCE/STUDY MATERIALS:

- American Red Cross - Emergency Response
- BCME Requirements

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